EMS Subspecialty Certification Review Course

4.1.3 Mass Casualty Management

Mass Casualty Management (4.1.3)

- Overview of Emergency Management
- Overview of National Response Framework
- Local, State, Federal Assets
- Mass Casualty Command
- Role of EMS Medical Director in MCI and Disaster
- Regional resource allocation and management

Question

Which of the following is NOT an important role for the EMS Medical Director to play during a disaster?

A. Provide medical advice to the incident commander
B. Provide care to patients in the treatment area
C. Facilitate communications between the local trauma centers and the EMS agency
D. Assure mental health follow up for EMS providers after the disaster
Emergency Management

• The managerial function that creates a framework within which communities reduce vulnerability to hazards and cope with disasters
• Emergency management is important at all levels of disaster preparedness and response:
  – Local
  – Regional
  – State
  – Federal

Disaster Organization in the US

Disaster Organization in the US

5 phases of Emergency Management

• Prevention – avoid, prevent, or stop threats
• Protection – secure the community against man-made or natural disaster
• Mitigation – reduce loss of life and property by curtailing the impact of a disaster
• Response – save lives, protect property and environment, meet basic human needs during a disaster
• Recovery – return the community to a normal state after a disaster
National Response Framework

- Defines key principles, roles, authorities, and structures that organize how we respond as a nation
- Scalable, flexible, adaptable
- Describes how the whole community responds – local, state, tribal, federal govs AND private sector, NGOs
- Describes Core Capabilities, Emergency Support Functions, and Support of specific functions by private and NGO partners

Core Capabilities

These are the activities that MUST be accomplished in an incident regardless of which levels of government are involved:

- Planning
- Public Info and Warning
- Operational Coordination
- Infrastructure Systems
- Critical Transportation
- Environmental Response / Health and Safety
- Fatality Management Services
- Fire Management and Suppression
- Logistics and Supply Chain Management
- Mass Care Services
- Mass Search and Rescue Operations
- On-scene security, protection, and law enforcement
- Operational Communications
- Public Health, Healthcare, and EMS
- Situational Assessment

Emergency Support Functions (ESFs)

- These are the coordinating STRUCTURES that group resources and capabilities into areas
- There are PRIMARY and SUPPORTING agencies responsible for each area

- ESF #1 - Transportation
- ESF #2 – Communications
- ESF #3 – Public Works and Engineering
- ESF #4 – Firefighting
- ESF #5 – Information and Planning
- ESF #6 – Mass Care, Emergency Assistance, Temporary Housing, and Human Services
- ESF #7 – Logistics
- ESF #8 – Public Health and Medical Services
- ESF #9 – Search and Rescue
- ESF #10 – Oil and Hazardous Materials Response
- ESF #11 – Agriculture and Natural Resources
- ESF #12 – Energy
- ESF #13 – Public Safety and Security
- ESF #15 – External Affairs
Local, State, Federal Roles

Local
- "All disasters are local" – managed locally
- Local Emergency Operations Center (EOC) is focal point for emergency management of an incident
- Usually activated by local government and emergency management coordinator ("emergency manager")
- Incident Command System (ICS) is used
- Local EOC / Emergency Manager requests additional resource via state when local and mutual aid resources are overwhelmed

State
- Statewide EOC and State Emergency Manager coordinate state resources to assist local responders/EOC (not take over!)
- Statewide medical teams and support may be available
  - National Guard
  - Nongovernmental Organizations (NGOs)
  - Volunteers
  - Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP)
- Coordinates additional Emergency Support Function response
- Develops and requests emergency management Assistance Compact (EMAC) – mutual aid between states and territories
- EMS agencies can be requested to support
- If state resources are depleted, the Governor can request federal support
The States have a critical role in supporting local disaster response. They provide or coordinate additional medical or support functions such as security, shelter, etc. State resources can be requested via the local government/emergency manager. These resources may include the National Guard, State medical response teams, incident management teams, etc. Additionally, NGOs are often coordinated via the state. Many support functions will be outside of most local responders and as such technical teams such as HAZMAT and search and rescue may be resource via the state. Typically CBERNE events will have State engagement.

Emergency Management Assistance Compacts (EMAC) are vital for large scale events. These State to State agreements allow sharing of resources among states. These may be able to respond quicker than Federal assets. These are often precoordinated to facilitate rapid response once requested. These agreements should also address issues such as medical licensing, credentialing, and liability.

Requests for Federal assets such as DMAT etc. will be coordinated via the State to FEMA.

Local, State, Federal Roles

Federal
• Coordinated via FEMA
• The federal government / assets DO NOT take over – they assist!
  – Urban Search and Rescue (US&R)
  – Military resources
  – Department of Homeland Security (DHS)
  – Health and Human Services (HHS) - National Disaster Medical System (NDMS)
  • Disaster Medical Assistance Teams (DMAT)
  • Disaster Mortuary Support (DMORT)
  • National Medical Response Teams (NMRT)
  • International Medical / Surgical Response teams (IMSURT)
  • National Veterinary Response Teams (NVRT)

These assets will typically be coordinated via the State after Local and State resources utilization has been maximized. These portable teams are often self-sufficient or support requirements are coordinated. Federal response teams are on standby but may not be available to respond during the initial hours of the event. The DMAT is the most likely to be addressed on the examination.

These are multidisciplinary teams that provide assistance to triage and treat victims. They work under the guidance of the local statutory authority. The can provide temporary/mobile medical facilities, treat victims in the same manner as a hospital, perform tracking of treated victims, and provide support to local hospitals.
Mass Casualty - Command

Command of a Mass Casualty Incident

- National Incident Management System (NIMS) – provides a common and consistent nation-wide, interoperable approach for how all governmental, private, and NGO sectors work effectively and efficiently together to prepare for, respond to, and recover from an incident, regardless of size and complexity
- Command of an event should be performed under the Incident Command System (ICS)
  - Public safety personnel are well-versed in ICS
  - EMS Medical Directors typically do not have a well-defined role in ICS – they usually serve in a senior advisory role / liaison to scene commanders, health care facilities, and other agencies
  - The most important role EMS Medical Directors play is helping assure his/her providers are ready and well-trained to respond, and have appropriate equipment and protocols for a disaster

Mass Casualty - Preparedness

EMS Medical Director Role:

- Education - Training – Drills
- Assuring coordination among key personnel/resources BEFORE a disaster
- Identify resources that may be needed for EMS, their location, how to access them, and plans for distribution during a disaster
- Assure MCI protocols are in place – consider Crisis Standards of Care and Alternate Destination Facilities that may be used if needed
- Help facilitate adequate communication capability among EMS agencies, health care facilities, ERs, and governmental agencies

Regional Resource Allocation and Management

- Be familiar with regional resources and how to access them prior to an event
- Consider Crisis Standards of Care
- Alternate destination facilities
- Typically coordinated by regional or state entities
Resource Allocation Considerations

- Resources are not sufficient to immediately fulfill a request
- Resource requests of one locale may affect another locales ability to get the resources it needs
- Resources brought into the region are not sufficient to meet all the needs within the region.

Resource Allocation (cont)

- Resource management strategies should reflect the relationship between the demand for resources and their supply.
- Allocation is a general term that refers to the assigning of resources for specific purposes. Allocation strategies vary greatly depending on whether resources are plentiful or scarce. During minor and moderate surges, when resources are typically adequate, strategies such as discharging patients early, cancelling elective operations and outpatient clinics help redirect resources to the surge event, thus mitigating resource shortfalls.
Many resources may be limited during the initial phase or during the entire event. Response capabilities may be limited. Local, State and Regional coordinating centers may be faced with attempting to meet the needs of multiple geographically separated locales. As physicians or healthcare entities you may have to ration critical resources such as ventilators and ICU beds. There is no single strategy which can resolve this problem. As a physician you may be required to provide input on crisis standards of care such as who is triaged to an ICU bed or a placed on a ventilator. Additionally, you may have to determine alternative care sites such as establishing medical shelters in gymnasiums, churches etc.

**Mass Casualty - Response**

**EMS Medical Director Role:**
- NOT on-scene command
- NOT primary medical provider
- YES
  - Advise Incident Commander, Medical Commander
  - Facilitate communication between IC and medical entities involved
  - Public information / media – MUST go through IC and the Public Information Officer (PIO)
  - Help determine medical needs as incident escalates
  - Altered standards of care?
Mass Casualty - Response

**Medical Branch:**
- **Triage**
  - Many different systems
  - Training and allowing lower-trained personnel (EMT) to triage allows advanced care personnel (paramedics) to treat patients
- **Treatment**
  - Should be started on-scene
  - Using non-transport medics to provide treatment allows paramedics on EMS units to provide ALS transport
- **Transport**
  - Critical patients should be evenly distributed
  - Non-critical and non-trauma patients should go to non-trauma centers to keep trauma centers available for critical trauma patients
  - Continuous feedback between hospitals and transport officer is critical

Mass Casualty - Recovery

**EMS Medical Director Role:**
- Patient tracking / reunification – assure a robust tracking system, and redundant tracking systems. Work with local, state, national organizations on tracking plans and resources
-Responder mental health
- After-action review

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